DOCUMENT RESUME

ED 314 065

IR 052 998

AUTHOR

Buchman, James H.; Alter, Linda L., Ed.

TITLE

The Authoritative Guide on the Use of Telefacsimile

in Libraries: An Occasional Paper. Series 2, No.

з.

INSTITUTION

Ohio State Library, Columbus.

PUB DATE

PUB TYPE

Oct 88 23p.

NOTE

Guides - Non-Classroom Use (055)

EDRS PRICE

MF01/PC01 Plus Postage.

DESCRIPTORS

Electronic Mail; *Equipment Standards; *Facsimile

Transmission; *Information Dissemination;

Interlibrary Loans; *Library Automation; *Library

Technical Processes; Reference Services;

Technological Advancement; *Telecommunications; User

Needs (Information)

IDENTIFIERS

Vendors

ABSTRACT

This guide addresses the positive and negative issues associated with adapting telefacsimile technology to meet library service needs, and provides basic information about the technology while demonstrating how librarians have begun to incorporate it into their work processes. Individual sections cover: (1) the history of facsimile technologies in and outside of libraries; (2) technological changes and improvements sir - 1981; (3) specific applications in libraries -- i.e., for interlibrary loan, for branch communication, for referral of reference questions, or as a document delivery device; (4) the relationship between electronic mail and telefacsimile; (5) what to look for when purchasing telefacsimile equipment; (6) definitions of 10 key features -- e.g., automatic stepdown; (7) maintenance agreements; (8) telecommunications costs; and (9) the future of telefacsimiles. Three appendixes provide definitions of terms not defined in the text; a list of facsimile manufacturers and their telephone numbers; and suggested guidelines for using telefacsimile as an interlibrary loan delivery device. (6 references) (SD)

Reproductions supplied by EDRS are the best that can be made

* *********************

from the original document.



Secsional

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization organization to
- Minor changes have been made to improve reproduction quality
- Points of view or opinions stated in this document do not necessarily represent official CSRI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R.M.Cheski

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

The State Library of Ohio

ERIC

Series 2, No. 3, November 1988

The Authoritative Guide on the Use of Telefacsin ile in Libraries: An Occasional Paper.

October 1988

Written by: James H. Buchman Edited by: Linda L. Alter



Introduction

Technological changes within society (and libraries) have created the impression of depersonalizing business relationships, while actually providing the ability to enhance present services. Utility companies, banks and libraries are involved in the technorevolution and it is a constant battle to stay current.

One significant technological advancement has been a marked increase in telefacsimile usage.

Because of the many problems associated with telefacsimile in the past, librarians have been somewhat reluciant to tailor the technology to improve patron service. Continued library reliance on proven delivery methods have conditioned patrons to accept a delay of days or possibly weeks to receive a filled interlibrary loan. However, since 1981 telefacsimile technology has affected a change to this scenario.

This paper attempts to address many of the positive and negative issues associated with adapting telefacsimile technology to meet library service needs. It provides basic information about the technology while demonstrating how librarians have begun to incorporate it into their work processes.

Definition of Telefacsimile

In its 1983 publication, Guide to Electronic Facsimile Systems, The National Institute of Justice (NIJ) defines facsimile machines as machines that "transmit the image of a document, such as a text, drawing, or photograph, to a remote location where it is received and printed by other facsimile machines, usually using special paper." (p. vi)

The prefix tele means from a distance. Thus the word telefacsimile incorporates NIJ's definition with the added notation, from a distance.

Some facsimile units utilize FM radio frequencies to send and receive transmissions, while others—such as the majority of today's digital facsimile units—utilize standard voice-grade telephone lines. The technology used to transmit an image from one facsimile unit to another is comparable to the technology used in making photocopies. Because of this similarity, today's major vendors of photocopy machines are also the major vendors of telefacsimile machines.



۲.

History

Early experimentation with facsimile technology originated in Europe during the mid 1800s and is the oldest form of office automation technology. Although these early devices proved to be of little practical value, they did forge the foundation for future experimentation and development (Costigan, 1970).

The first commercial facsimile network was developed by Dr. Arthur Korn in 1910. This network linked Berlin with London and Paris. By 1920, Dr. Korn had expanded his European network, and on June 11, 1922 he successfully transmitted a picture of Pope Pius XI from Rome to Bar Harbor, Maine. The photograph was published on that same day in the New York World (Costigan, 1970).

Interest in facsimile applications in the United States progressed slowly during the 1930s and 40s. The leading manufacturers of that era were the American Telephone and Telegraph Company, RCA, and Western Union. Each company independently developed its own system, but incompatible standards prevented transmissions from one system to another (Costigan, 1970). Primary applications included transmission of news photographs and the transmission of weather data to ships at sea.

There was little change in the technology, or in the use of the technology, between 1940 and 1960. During that time, the primary use of facsimile equipment continued to be for the transmission of news photographs. The equipment was extensive in size and expensive to purchase and operate.

In 1963, the industry developed a facsimile device that would transmit analog waveforms through standard telephone lines. By the mid-60s, compact desk-top units were available and the industry began expanding its markets to include small businesses and offices, governmental agencies, financial institutions and libraries.

A Short History of Telefacsimile Use in Libraries

According to a Library Hi Tech (1987) article written by Richard Boss and Hal Espo:

Librarians began experimenting with the technology in the 1960s, using it mainly for the rapid transfer of interlibrary loan requests and brief journal articles.



The early experiments used analog machines that required four to six minutes to transmit a page of text. Most reactions to this process were negative. Telefacsimile was considered to be inadequate not only because of the slow transmission rate, but also because the equipment was expensive and unreliable, produced copies of low quality, and was not serviced by its manufacturers. The apparent absence of a real demand for rapid access to library materials was another reason not to buy facsimile in the early years. (p. 33)

Because of the many pitfalls cited by Boss and Espo, early telefacsimile use in libraries was mostly confined to use as a communication tool for the sending of interlibrary loan requests. More standard methods of document delivery, such as U. S. Mail and courier services, were used for transporting the hard-copy document.

One of the first experiments to use telefacsimile as a library document delivery tool was the Telefax Library Information Network (TALINET) Project. This 1978-79 project linked together remote sites in five western states (Colorado, Kansas, Montana, Wyoming, and Souch Dakota). The project ended after only six months of operation, during which time, 958 requests were processed. (Boss and Espo, p. 34)

TALINET Project evaluators reported that "only 28 percent of the requests were 'time-crucial,' . . . and that materials frequently remained at the libraries for extended periods after the patrons were notified of their availability." Nonetheless, the report concluded that "the technology was suitable for libraries." (Boss and Espo, p. 34)

Even though the TALINET Project approved telefacsimile for use in libraries, librarians still expressed strong negative opinions of the technology. Also, it was still an expensive form of document delivery which made it cost prohibitive for libraries with limited budgetary resources. These perceptions continued to impede the advancement of the technology into the library community until the mid-1980s.

Technological Changes

In 1981, high-speed digital telefacsimile units became available on the market. Digital telefacsimile units provide higher copy resolution and a much faster transmission speed. A letter-size page



that takes between three to six minutes to transmit using an analog unit, can be transmitted on a digital unit in twenty to forty seconds. Digital units offer the added advantage of programmable system controls, designed to aid the user and assist in automating the process. All of these features are easy to use, requiring minimal staff training. More detailed information about equipment feature: and options is provided later in this paper.

Telefacsimile Applications in Libraries

Librarians are currently utilizing telefacsimile technology in a variety of applications. Most of these applications provide a direct patron service benefit.

Telefacsimile for Interlibrary Loans The most widely used library application of telefacsimile is for the processing of interlibrary loans (ILLs). Studies indicate that telefacsimile is an advantageous mechanism for document delivery of ILLs to end-users. Some studies used telefacsimile for the sending of selective ILLs only, utilizing other conventional forms of document delivery for sending the filled items, while other studies utilized the technology for all filled interlibrary loan photocopy requests. One study that utilized telefacsimile for all filled ILLs was a project sponsored by The State Library of Ohio called HEALTHFAX.

HEALTHFAX was a one year pilot project to study the feasibility of utilizing telefacsimile technology to access biomedical, health-related information among multi-type libraries. It was funded by a Library Services and Construction Act (LSCA) Title III grant. During the project, all health-related requests from participating libraries were sent via a seventeen station telefacsimile network, as illustrated below.





Participants included academic, hospital, institution, special and public libraries.

LSCA support of the network concluded on June 30, 1987. Upon conclusion of the project, an evaluation was conducted by an outside observer. One conclusion made by this evaluator, based upon survey results of participants, was that telefacsimile should not be used as a full document delivery device for all ILLs (May, 1987, p. 18). During the project, 3,643 requests and 36,049 pages were transmitted via the telefacsimile network. This volume proved to be a tremendous work load for participating libraries. Survey responses indicate that telefacsimile should be used for rush and urgent (patient care) requests only.

Telefacsimile for Branch Communications Large metropolitan library systems have discovered that telefacsimile is an effective communication link between branch libraries and their main or central library. By using telefacsimile, a branch librarian can request information from the main library, which is unavailable at the branch. These information requests are normally in the form of reference questions or requests for photocopies of specific articles. Today's "high tech" library makes it easy for the branch librarian to quickly determine system holdings and locations, and initiate a request via telefacsimile.

Studies indicate that patron satisfaction with this type of service is high. Patrons are impressed by the speed of the service, the quality of the received copy and the fact that they are not required to physically go to another location to access resources.

In 1982 the Denver Public Library system utilized telefacsimile technology as a cost effective measure in dealing with significant budget cuts and staff reductions. During that time, reference services were discontinued at the branch libraries and consolidated at the five main branches and the central library. Upon determining that the requested information was unavailable at the branch library, the branch librarian transmitted the request to one of the five main branches or to the central library. Responses were telefaxed back to the requesting branch library, usually within minutes. The first three pages were free of charge. After the initial three pages, patrons were charged fifty cents per page (McQueen & Boss, p. 31-33).

In Ohio, the Dayton Public Library system and The Public Library of Columbus and Franklin County (I LCFC) established telefacsimile networks in late 1987. These two networks were not created because of budget cuts, but rather, to improve the abilities



of branch librarians to provide timely responses for information not available at the branch location.

In addition to the use of telefacsimile to enhance branch services, PLCFC is providing telefacsimile services to Columbus area companies with a PLCFC Corporate Library Card. This service is available for use by any governmental agency, Columbus based corporation, or state legislator. Responses are telefaxed directly to the company's office, or to one of PLCFC's branches for pickup. Currently, patrons are charged 25 cents per page, with a limit of 25 telefaxed pages per request. A \$3.00 service fee is also added to each request. (These fees may by subject to change.)

Ohio's telefacsimile network rapidly expanded during 1987 and 1988. This expansion is due, in part, to the awarding of six Library Services and Construction Act, Title III grants by The State Library Board of Ohio. With the awarding of these grants, 126 telefacsimile units either have been or will soon be installed; linking together public, academic, special and technical school libraries. One grant, awarded to the Akron-Summit County Public Library will use cellular telefacsimile units in bookmobiles to provide a direct communication link between the bookmobiles and the main library. These units will be used to transmit copies of articles from periodicals and for the transmission of reference queries. Additional LSCA monies were used to link Ohio's Regional Systems' Headquarters and contract Resource Libraries. Now, libraries with telefacsimile units—which are members of a Regional System—can immediately send and receive information to and from their system headquarters or resource library. This configuration vastly improves the ability of member libraries to obtain timely information, which is unavailable locally.

Telefacsimile for Reference Services Many libraries operating within local networks or consortia refer reference requests to their appropriate resource library by making a telephone call. This process allows the librarian at the resource library to conduct a reference interview to ascertain pertinent information needed to fill the request. While this is a proven process, it can be further enhanced by telefacsimile technology. Reference requests can be referred to the appropriate resource library by telefacsimile, or the resource library can utilize telefacsimile as a document delivery device to speed the answer directly to the requesting library.

One objective of the Ohio HEALTHFAX project was to study the need for providing health-related reference services to nonhealth care providers. Although the quantitative objective of processing 500



 \mathbf{y}

reference questions was not met, 113 questions were processed through the network. The types of questions asked by patrons varied greatly. Analysis of reference questions by type of requestor indicates that 61 questions (54 percent of the 113 total) were from adult laypersons; 22 (19 percent) were from health professionals; 7 (6 percent) were from library staff; 3 (3 percent) were from students; and 20 (18 percent) were of an undetermined status.

At the conclusion of the project participants were surveyed to determine their satisfaction with the service. Respondents overwhelmingly indicated that they would like to continue to use telefacsimile to refer reference questions to medical resource libraries. The survey further suggested that medical resource libraries need to be more aware of the types of questions asked by the lay-public and, more importantly, the appropriate level of response.

Electronic Mail and Telefacsimile

The determination to use electronic mail or telefacsimile technology is an individual one. Each medium has its advantages and disadvantages and it is ultimately the user who must decide which medium is best for a particular purpose.

At the State Library of Ohio, electronic mail usage significantly decreased after the HEALTHFAX telefacsimile network became operational. Other HEALTHFAX participants noted similar decreases in electronic mail usage and one institution even canceled its subscription to an electronic mail service.

There are several disadvantages to electronic mail, which may in part explain this. The primary disadvantage of electronic mail is that the text must be re-typed on a microcomputer, or scanned using recently developed, scanning devices, prior to sending. This process is necessary to convert the characters into a machine readable format so that the computers can communicate (talk) to one another during the sending/receiving process. In addition, the person receiving the electronic mail must remember to check for incoming mail. Otherwise, the message will be placed in an electronic holding pattern—like an airplane circling an airport waiting for permission to land. After the message has been received, it must then be downloaded to a printer, if the person receiving the message wants a hard copy.

Sending a document or message by telefacsimile does not require the user to alter or rekey the original form. Pages from bound resources



such as books or periodicals must be reproduced prior to telefaxing, but this is a standard library practice and so, in effect, no additional work is required. Often the original document can imply be loaded in the telefacsimile unit and sent.

In addition, received telefacsimile copies are visible to anyone in the area. There is no need to remember to check a "mail box". While this is an advantage, it can also be viewed as a disadvantage if the received material is of a confidential nature. Electronic mail is advantageous for handling confidential documents since access is restricted by a user password.

There are many more microcomputers than telefacsimile units in libraries, which creates a larger core of potential electronic mail users. Services such as ALANET and the State Library of Ohio's electronic mail network, SLOLine, are potentially available to any library owning a microcomputer with dial access capabilities. Even small libraries with limited budgets and staff are able to tilize the versatility of a microcomputer for reliable, easy and fast access to other libraries and networks connected by electronic mail services. The size and number of electronic mail networks in this country greatly outnumber telefacsimile networks, but according to Eve Davis in the January 1988 issue of American Libraries, " Industry experts predict . . . (that) over a million (telefacsimile) machines (will be) in operation by 1992." (p. 63) If the experts are correct, telefacsimile technology could replace the need for electronic mail-at least until a new, better, faster, more reliable, less costly communications medium is introduced. Until that time, librarians must continue to make an individual choice about which technology is better suited for their particular needs.

What To Look For When Purchasing Telefacsimile Equipment

Prior to making any commitment to purchase or lease a telefacsimile machine, careful attention and consideration should be given to determine how the equipment will be used. For example, if the intended use is for an occasional transmission of one or two pages of correspondence, then a small, inexpensive desk-top model will suffice. If, on the other hand, it is intended to be used for sending and filling ILL—and usage is expected to be neavy—then a larger, more expensive model with options to aid the user should be



1i

considered. Expected usage will also be a determining factor in the number of units needed for the intended operation. If it is expected that usage will be extremely heavy, some may want to consider purchasing two units: one for send only and one for receive only.

In general, buying a telefacsimile machine is a lot like buying a car: the prospective buyer must shop around and buy the machine that is best suited to his/her needs. Why buy a truck when a subcompact will do?

Vendors

Telefacsimile units range in price from as low as \$1,500 to as high as \$8,000 to \$10,000 per unit. As was noted earlier in this paper, today's major vendors of photocopy machines are also the major vendors of telefacsimile machines. Included in this paper as Appendix B is a list cf some of the major telefacsimile vendors in the United States. This is not a complete list, but it can be used as a guide for prospective buyers wanting to contact some of the major equipment dealers.

Bells and Whistles

To the novice, talking with a telefacsimile representative about features and options such as secure polling, automatic stepdown, group compatibility and autodial cards can instill a feeling of catatonic disorientation. While there are a number of different brands and models on the market, all share common features which should be considered in any installation. The following section outlines and defines some of these common features.

RJ11c Phone Jack: Most of today's digital telefacsimile units transmit and receive data through standard voice-grade telephone lines. The phone line runs from time wall directly to the telefacsimile unit. The line plugs into the wall and the unit by use of the RJ11c phone jack. The RJ11c jack is a plastic modular clip which is a standard telecommunications installation device. Sites with older phone systems may have to consider modifying a telephone line to accommodate this setup. Such a modification is an inexpensive process but it should be done by a qualified telephone company service technician.

Some telefacsimile units require that a separate telephone instrument be connected to the unit for dial purposes; others have



a push button telephone key pad built into the unit. Both types operate equally well and do not require additional installation.

Automatic Stepdov n: This feature allows the unit to slow transmission speed to communicate with older generation telefacsimile units. A unit with CCITT Groups III, II, and I compatibility features (see Appendix A for definition of CCITT Groups) can communicate with any other unit operating on one of these levels.

Automatic Receive: This feature allows the unit to receive documents without human intervention. In order to utilize this feature, the unit must be installed with a dedicated telephone line which cannot be used to receive voice telephone calls. This is a required feature if heavy usage is expected.

Manual Receive: This feature requires that someone answer the telephone and then turn on the unit in order to receive a document. Mostunits provide a selector switch in order to change the unit between automatic and manual receive.

Automatic Redial: This feature will automatically redial a number (station), after an elapsed period of time, if the unit was unsuccessful in transmitting a document because the receiving unit was busy. This feature is used in the send mode only.

Autodial Cards: Autodial cards are cards which allow the user to preprogram the unit to turn on and send a document to a particular location at a particular time. By using autodial cards, or delayed transmission, the sender can transmit a document, or a group of documents with different destinations, at night when phone rates are less costly. The receiving unit must be set to automatic receive.

Automatic Document Feeder: This feature allows the user to send multiple pages during one transmission. Most manufacturers' specifications indicate a 30 page limit per loading. Also, by use of the autodial cards, multi-page documents can be sent to different locations by loading the document feeder only once.

Polling (Secure and Nonsecure): This feature allows the user to preprogram a unit to turn on and dial another unit to check to see if there are any documents in the feeder of the receiving unit waiting to be sent to the polling unit. If docu. ents are waiting to be sent, the first unit (polling) will then receive the documents. Telecommunication costs are charged to the first unit, which becomes the receiving unit. This feature is useful to account for telecommunication costs in multi-station networks.



Secure polling means that the first unit must send a preprogramed password to the second unit before the second unit will release the documents. This is a useful feature for dealing with confidential information, but is not ordinarily needed for library applications.

Contrast & Resolution Controls: These features are like the features found on photocopy machines which allow the user to set up the sending unit to accommodate documents that are light or dark, or printed using a fine, compact type face. This is important in utilizing telefacsimile as a document delivery device for ILLs, since publishers use a variety of different contrasts and type faces.

Dial Directory: This feature allows the user to record frequently called telephone numbers in the unit's memory. Once programmed, the user can send a document without having to dial the telephone number of the receiving unit. Most units will hold between 50 and 100 telephone numbers. In order to use this feature, the receiving unit must be set to automatic receive.

All of these are common features in today's digital telefacsimile units. Buyers can expect to pay an average of \$2,000 for units with these features. The most important consideration for prospective buyers is to purchase a unit that has features to automate and enhance the intended use. There is no need to purchase a unit with polling capabilities if that feature is not needed in the intended operation. Prospective buyers should shop around and request demonstrations from local representatives. Many times the buyer will find, however, that the only real difference in machines is the purchase price.

Maintenance Agreements

Maintenance contracts vary with manufacturers. Some companies offer a one year warranty included with the purchase price; others offer 90 days, with an option of purchasing a separate, extended maintenance agreement.

As a general rule, today's digital equipment is reliable and problems—if any—will normally surface during the first ninety days. Often, a sales representative may be willing to negotiate inclusion of a one year free maintenance agreement with the purchase.

Make certain that the company can provide on-site maintenance within 24 hours, or one working day. Most can, but be certain to raise the issue with the sales representative. Also, ask for a list of current users to contact. Call them and ask about the reliability of



the equipment and timely response to service calls. Can the dealer provide the quality of service as promised?

Most maintenance contracts include a clause that voids the contract if the owner uses receive paper produced by a company other than the equipment manufacturer. This requires the user to purchase "fax paper" directly from the manufacturer, usually at a slightly higher price.

In summary, prospective buyers must keep several things in mind when deciding which telefacsimile unit to purchase. How will the system be used and what features will be needed to take full advantage of the system? How many units will be needed and at what cost per unit? What kind of after sales support can the company provide and at what cost?

Telecommunication Costs

It is difficult to determine exact costs for sending an item via telefacsimile. Speed of transmission, telephone rates and the time of day the information is being sent determine the cost per page ratio, and vary greatly. For example, one of the major phone companies in Ohio determines its in-state rates based upon the area code the user is calling from, the time of day the call is being made, and the first three digits of the phone number receiving the call. All of these factors affect the cost per minute of sending a document via telefacsimile. Add to this a variety of different telephone companies, each charging different rates, and it becomes clear how unclear it is to estimate communication costs.

The Ohio Biomedical Telefacsimile Project, HEALTHFAX, attempted to reduce telecommunication costs by using delayed transmission of filled ILLs. During the project, each resource library as assigned a specific hour between 11:00pm and 7:00am in which to transmit filled ILLs. In practice, however, this became problematic. Because of the volume of ILL activity (36,049 pages were transmitted during the project), and because of the machines' limitation of 30 pages per unattended transmission, it was not possible to set up the units to send all ILLs at one time. Analysis of project data, however, indicated an approximate cost of 35 cents per transmitted page.



Suggested Guidelines

Standard interlibrary loan codes, such as the ones produced by the American Library Association (ALA) and the Ohio Library Association (OLA), do not provide guidelines, procedures or protocol for the use of telefacs, tile as a document delivery device. Instead, guidelines have been developed by individual institutions or networks utilizing the technology, and these guidelines differ according to network structure and need. For example, some libraries will not accept ILL requests via fax, while others will accept only rush requests. Still others will accept any ILL request via fax. Some libraries charge an additional fee to fill an ILL fax request, while others charge no fees. Consequently, what has developed in the country-and in Ohiois a series of telefacsimile networks which do not actively interact with one another. Rather, telefacsimile activity tends to be confined to a known group, area or netwo a with which the librarian feels comfortable. Because of the uncertainties of telefacsimile policies out side of a "known" area, many librarians may be somewhat reluctant to engage in internetwork faxing. This dilemma is inherent in the entire ILL process, but is more exaggerated with telefacsimile because of the lack of standardized guidelines for use.

Included with this paper as Appendix C are suggested guidelines to use telefacsimile as a viable interlibrary loan document delivery device. These guidelines were adapted from the HEALTHFAX guidelines, which were developed by various librarians involved in the project. Although the HEALTHFAX project dealt only with biomedical, health related requests, the guidelines are easily modified to include other types of information requests.

Telefacsimile's Future

Telefacsimile technology continues to improve. Recently, Group IV equipment became available. Group IV units transmit at a faster speed and produce a better quality copy. Group IV units do not utilize standard voice-grade telephone lines. Rather, transmissions are sent by a process known as packet switching, which is available in large metropolitan areas only. Ruby May (1987) expects that Group IV units will not be a viable option for libraries simply because of the economics involved: it costs approximately \$10,000 to connect a packet switching group.

Specially designed microcomputer software and modems now makes it possible to link microcomputers with telefacsimile machines to send or receive documents. This equipment cans, reads, converts and transmits or receives data to or from any digital telefacsimile unit. The cost of this equipment ranges from \$500 to \$2,000. Currently, this technology is not widely used in libraries.

One other technological advancement, which has great potential for library applications, is a telefacsimile device that will transmit images directly from a book or periodical. This type of equipment can also function as a copier. Although only a few manufacturers are currently marketing these units, the purchase price is reasonable and affordable.

Communications technology is changing so rapidly that it is difficult to predict with any certainty the role elefacsimile will play in libraries of the future. Will telefacsimile technology continue to expand to link with other technologies, or will it be replaced by a better communications medium? Whatever the outcome may be, librarians will surely find ways to use the technology to strengthen and improve library services.



1%

Appendix A

Definition of Terms

Analog Transmissions:

The process by which the image of a document is transmitted using a continuous, electrical scanning impulse. This process typically takes between three and six minutes to transmit a single page of text.

Digital Transmissions:

The process by which the image of a document is transmitted using a noncontinuous electrical pulse, which compacts a line of text into a series of ones and zeroes. Because it uses a noncontinuous signal, it can transmit an image more quickly than an analog unit, which must use a continuous electrical waveform. Digital transmissions typically take one minute or less to transmit a single page of text.

Facsimile:

The process of transmitting an image of a document from one location to another, where a copy (facsimile) is then received and printed by machine.

Group Compatibility:

Protocols devised to establish compatibility standards of communications equipment developed by different manufacturers. These standards were created by the Consultative Committee for International Telephone and Telegraph (CCITT). The committee is composed of representatives from member countries of the United Nations.

Group I standards include facsimile units that transmit and receive at four or six minutes per page.

Group II standards include facsimile units that transmit and receive at two or three minutes per page.

Group III standards include facsimile units that ransmit and receive at one minute or less per page.



1&

Appendix B

Facsimile Equipment Manufacturers

AT&T Facsimile Equipment	1-800-247-7000
Burroughs Corporation	1-800-621-2020
Canon Facsimiles	1-800-652-2666
Fujitsu Limited	614-885-3645
Harris-3M Facsimile Systems	1-800-538-6789
Konica Facsimile Equipment	614-766-7800
NEC America INC	1-800-782-7329
Omnifax-Telautograph racsimile	216-267-4557
Panafax Telecommunication Systems	1-800-645-7486
Pitney Bowes Facsimile Systems	1-800-672-6937
Rapicom, Inc.	216-831-4790
Ricoh	1-800-328-2000
Sharp Facsimile Systems	614-291-4661
Teleautograph	1-800-225-6664
Toshiba Facsimile Products	1-800-457-7777
Xerox Telecopier Facsimile Equipment	1-800-832-6979

Note: Inclusion in this list should not be considered a recommendation by the State Library of Ohio. This list is not meant to be all inclusive. All 1-800 numbers may be called from Ohio. 1-800 numbers may vary in other states.



Appendix C

Suggested Interlibrary Loan Guidelines

Access

Libraries should first exhaust all local or regional resources through established interlibrary loan channels before referring the request beyond these established channels.

What May Be Requested

Requests for monographs and journal articles may be submitted via FAX, as well as requests for information or reference.

Format For Requesting Materials Via FAX

Requests should be sent on a standard ALA Interlibrary Loan Form. This should be typed or neatly printed using a dark ink. The word "FAX" should appear at the top of the form (see Attachment B).

Requests for information or reference should also be sent on a standard ALA Interlibrary Loan Form. The word "Reference" or "Subject" should appear at the top of the form under the word "FAX". The section "Verified In" should contain a list of sources already checked. Also indicate the name and phone number of a contact person within the borrowing library. This is necessary information should the lending library need to conduct a reference interview.

Internal forms may be used to send requests providing that these forms are similar in size and format to the ALA forms.

It is also desirable to include on all FAX requests the date and time the request is being sent, the telefacsimile phone number of the requesting library, and the time frame in which a response is expected (4 hours, one day, etc...).

Suggested Guidelines for Use

Charges

It is the responsibility of the borrowing library to clearly indicate on the form the maximum amount they are willing to pay for the requested item.

Bibliographic Data Elements

Requests for journal articles should contain:



Appendix C (continued)

Periodical title, volume and date. Author and title of article, and pagination. A copyright compliance statement must also be included.

Requests for books should contain:

Author, title and publication date.

Reference requests should contain as much specific information as possible, including a listing of sources already checked.

Length of Articles

Information supplied via FAX should be limited to 30 pages. Articles exceeding this limit should be sent via UPS or U.S. Mail. This limit should not apply to priority requests.

The lending library should notify the borrowing library, via FAX, that the requested information was not available or that the information is being sent via some other channel.

Priority Requests

RUSH requests are at the discretion of the borrowing library.

The word "RUSH" should appear at the top of the form under the word "FAX". Also, include the name and telephone number of a contact person at the borrowing library in case the lending library has questions about the request.

It is not unreasonable to expect the lending library to respond with either the requested information or a status report within four hours.

URGENT requests are of an emergency nature. Usually these are health-related, patient care requests from health professionals.

The word "URGENT" should appear at the top of the form under the word "FAX". Also, include the name and telephone number of the patron requestor in case the lending library has any questions about the request.

The Borrowing library should first call the lending library to alore the potential lender that an URGENT request has been or is being sent.

The lending library should respond with either the requested information or a status report within one hour.



References

- Boss, R. W., & Espo, H. (1987, Spring). The Use of Telefacsimile In Libraries. Library Hi Tech, 5(1), 33-42.
- Costigan, D. M. (1971). FAX: The Principles and Practice of Facsimile Communication. Philadelphia: Chilton.
- Davis, E. J. (1988, January). IV. A City/County Library Tries Intra-Faxing. American Libraries, 18 (1), 62-63.
- May, R. S. (1987, November). [Bio-Medical Telefacsimile Project: Evaluation Report]. Unpublished report.
- McQueen, J., & Boss, R. W. (1983, January-February). High-Speed Telefacsimile in Libraries. Library Technology Reports, 19 (1).
- National Institute of Justice (1983, January). Guide to Electronic Facsimile Systems (Report No. 201-83). Washington, DC: U.S. Department of Justice.



Funded by LSCA Title I An Equal Opportunity Employer/An Equal Access Agency

The State Library of Ohio

65 South Front Street, Columbus, Ohio 43266-0334

Total copies printed 1,100 Unit Cost \$469 Publication date 6/89





